P23916.A06

AMENDMENTS TO THE CLAIMS

1.   (Canceled)

2.   (New)   A dispersed pulse vector generator used for a speech coder/decoder, comprising:

a pulse vector generator configured to generate a pulse vector having a signed unit pulse;

a dispersion pattern storage configured to store a plurality of fixed dispersion patterns;

a dispersion pattern selector configured to determine a selected dispersion pattern of the plurality of fixed dispersion patterns; and

a dispersed pulse vector generator configured to generate a dispersed pulse vector by convoluting the pulse vector and the selected dispersion pattern;

the dispersion pattern selector comprising;

a first selector that pre-selects dispersion patterns of the plurality of fixed dispersion patterns; and

a second selector that determines the dispersion pattern, of the pre-selected dispersion patterns, to be convoluted with the pulse vector.

3.   (New)   The dispersed pulse vector generator of claim 2, wherein the dispersion pattern selector determines the selected dispersion pattern with reference to an adaptive codebook gain.

4.   (New) The dispersed pulse vector generator of claim 2, wherein the pulse vector is generated based on an algebraic codebook table.

5.   (New)   The dispersed pulse vector generator of claim 2, wherein the plurality of fixed dispersion patterns stored in the dispersion pattern storage are sorted into plural types according to characteristics of each of the plurality of fixed dispersion patterns.

6.   (New)   The dispersed pulse vector generator of claim of claim 5, wherein the plural types comprise a first type comprising pulse shape-like dispersion patterns and a second type comprising random shape-like dispersion patterns.

7.   (New)   The method of generating a dispersed pulse vector used for a speech coder/decoder comprising:

    providing a pulse vector having a signed unit pulse;

    storing a plurality of fixed dispersion patterns;

    selecting a dispersion pattern of the plurality of fixed dispersion patterns;

    generating a dispersed pulse vector by convoluting the pulse vector and the selected dispersion pattern;

    wherein the selecting further comprises;

    pre-selecting dispersion patterns of the plurality of fixed dispersion patterns; and

    determining the dispersion pattern, of the pre-selected dispersion patterns, to be convoluted with the pulse vector.

8.   (New)   The method of generating a dispersed pulse vector used for a speech coder/decoder of claim 7,

    wherein the dispersion pattern to be convoluted with the pulse vector is determined with reference to an adaptive codebook gain.

9.   (New)   The method of generating a dispersed pulse vector used for a speech coder/decoder of claim 7,

wherein the pulse vector is provided based on an algebraic codebook table.

10.   (New)   The method of generating a dispersed pulse vector used for a speech coder/decoder of claim 7,

wherein the plurality of stored dispersion patterns are sorted into plural types according to characteristics of each of the plurality of fixed dispersion patterns.

11.   (New)   The method of generating a dispersed pulse vector used for speech coder/decoder of claim 10,

wherein the plural types comprise a first type comprising pulse shape-like dispersion patterns and a second type comprising random shape-like dispersion patterns.

12.   (New) A method of generating a dispersed pulse vector used for a speech coder/decoder comprising:

providing a pulse vector having a signed unit pulse;

pre-selecting dispersion patterns of a plurality of stored fixed dispersion patterns;

selecting one of the dispersion patterns of the pre-selected dispersion patterns; and

generating a dispersed pulse vector by convoluting the pulse vector and the selected dispersions pattern.

13.   (New) The method of generating a dispersed pulse vector used for a speech coder/decoder of claim 12,

wherein one of the dispersion pattern is selected with reference to an adaptive codebook gain.

14.   (New) The method of generating a dispersed pulse vector used for a speech coder/decoder of claim 12,

wherein the pulse vector is provided based on an algebraic codebook table.

15.   (New) The method of generating a dispersed pulse vector used for a speech coder/decoder of claim 12,

wherein the plurality of stored fixed dispersion patterns are sorted into plural types according to characteristics of each of the plurality of fixed dispersion patterns.

16.   (New) The method of generating a dispersed pulse vector used for a speech coder/decoder of claim 15,

wherein the plural types comprise a first type comprising pulse shape-like dispersion patterns and a second type comprising random shape-like dispersion patterns.